

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 April 2005 (14.04.2005)

PCT

(10) International Publication Number
WO 2005/034233 A1

(51) International Patent Classification⁷: **H01L 21/68**

Jangdang-Dong, Pyungtaek-City, Kyunggi-Do 459-020 (KR).

(21) International Application Number:
PCT/KR2004/002547

(74) Agent: **WON, Young-ho**; #205, Hanjoo Bldg., 647, Yeok-sam-Dong, Kangnam-Ku, Seoul 135-080 (KR).

(22) International Filing Date: 6 October 2004 (06.10.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2003-0070114 9 October 2003 (09.10.2003) KR

(71) Applicant (for all designated States except US): **SNT CO., LTD** [KR/KR]; Snt Co., Ltd., 624, Jangdang-Dong, Pyungtaek-City, Kyunggi-Do 459-020 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KO, Kyung-hyun** [KR/KR]; AJOU University Material Engineering Department, San 5 Wonchun-Dong, Paldal-Gu, Suwon, Kyunggi-Do 442-749 (KR). **LEE, Ha-yong** [KR/KR]; AJOU University Material Engineering Department, San 5 Wonchun-Dong, Paldal-Gu, Suwon, Kyunggi-Do 442-749 (KR). **LEE, Jae-hong** [KR/KR]; SNT CO., LTD, 624, Jangdang-Dong, Pyungtaek-City, Kyunggi-Do 459-020 (KR). **LEE, Hun-sang** [KR/KR]; SNT CO., LTD, 624, Jangdang-Dong, Pyungtaek-City, Kyunggi-Do 459-020 (KR). **LEE, Jae-jung** [KR/KR]; SNT CO., LTD, 624,

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

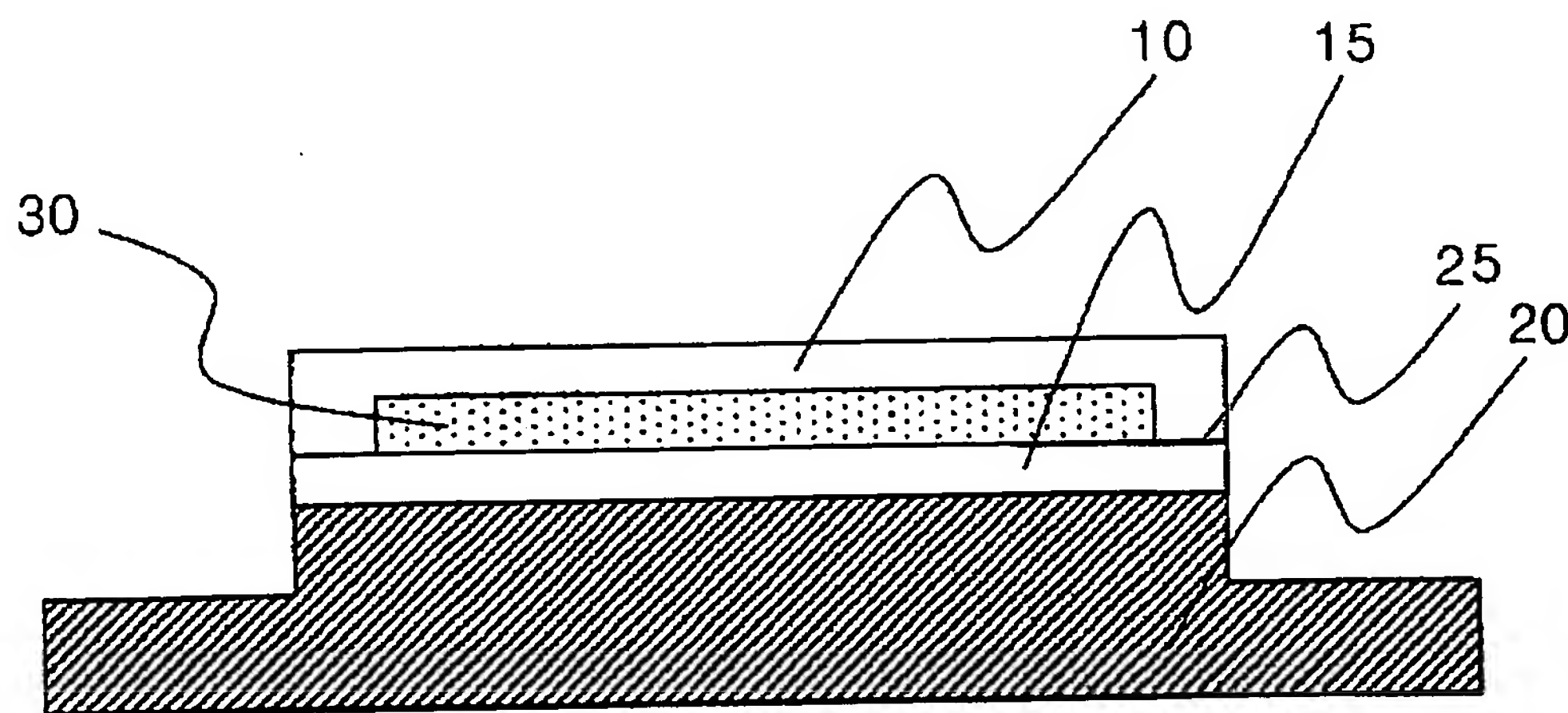
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ELECTRO-STATIC CHUCK WITH NON-SINTERED ALN AND A METHOD OF PREPARING THE SAME



(57) Abstract: The present invention relates to an electro-static chuck with non-sintered AlN and a method of preparing the same. Especially, the present invention relates to the electro-static chuck with non-sintered AlN which having coated aluminum nitride (AlN) layer as a dielectric one on the purpose of chucking the wafers in the process of wafers and a method of preparing the same. The electro-static chuck of the present invention has excellent dielectric characteristics, bonding strength and thermal conductivity by forming an AlN layer as a dielectric one without sintering process or bonding process with binders.

WO 2005/034233 A1